

**STATEMENT OF THE LEGAL AND FACTUAL BASIS**  
**FOR THE TERMS OF THE PROPOSED PERMIT**  
**[MDAQMD Rule 1203(B)(1)(a)(i)]**

TITLE V FEDERAL PERMIT TO OPERATE  
Facility named – MITSUBISHI CEMENT CORPORATION

Federal Operating Permit # 11800001

Issue Date: March 25, 2004

Processing Engineer:

William Weese  
Air Quality Engineer



FACILITY IDENTIFYING INFORMATION:

<u>Owner/Company Name:</u>	MITSUBISHI CEMENT CORPORATION
<u>Owner Mailing Address:</u>	MITSUBISHI CEMENT CORPORATION 5808 Highway 18, Lucerne Valley, CA 92356
<u>Facility Names:</u>	CUSHENBURY PLANT
<u>Facility Location:</u>	5808 State Highway 18, Lucerne Valley, CA 92356
<u>Mailing Address:</u>	MITSUBISHI CEMENT CORPORATION 5808 State Highway 18 Lucerne Valley, CA 92356
<u>MDAQMD Federal Operating Permit Number:</u>	11800001
<u>MDAQMD Company Number:</u>	1180
<u>MDAQMD Facility Number:</u>	0001
<u>Responsible Official:</u> <u>Title:</u>	Mr. H. O. "Bud" Biggs Vice President and Plant Manager, Mitsubishi Cement Corporation
<u>Phone Number:</u>	760-248-7373
<u>Facility "Site" Contacts:</u> <u>Phone Number:</u>	Mr. Douglas C. Shumway Environmental Manager 760-248-7373 (extension 136)
<u>Facility "Off Site" Contacts:</u> <u>Phone Number:</u>	none
<u>Nature of Business:</u> <u>SIC Code:</u> <u>Facility Location:</u>	Cement Manufacturing Facility 3241 Cement Manufacturing UTM (Km) 489E / 3863N

**STATEMENT OF THE LEGAL AND FACTUAL BASIS FOR THE TERMS OF THE  
PROPOSED PERMIT [1203(B)(1)(a)(i)]**

Statutory and Regulatory Authorities: Pursuant MDAQMD Regulation 12, Program - Federal Operating Permits, a.k.a. Title V (Adopted 7/25/94, Amended 02/22/95, Additional Rules adopted 06/28/95, 7/31/95) and 02/05/96 FR 4217, in accordance with Rule 221 - *Federal Operating Permit Requirement*, 40 CFR 52.220(c)(216)(i)(A)(2) - 02/05/96 61 FR 4217 of the Clean Air Act of 1990, the Mojave Desert Air Quality Management District issues this permit.

Federal Operating Permit (FOP number: 11800001) for MITSUBISHI CEMENT CORPORATION, 5808 Highway 18, Lucerne Valley, CA 92356. MITSUBISHI CEMENT CORPORATION, Is a Manufacturing Clinker for Cement facility, SIC Code: 3241 Cement Manufacturing.

The MITSUBISHI CEMENT CORPORATION Title V Federal Operating Permit was developed by consulting District Permit conditions for existing equipment, SIP Rules and NSPS requirements for Federal Rules, applicable to the facility. MDAQMD Title V Program Rules were also consulted.

**I. FACILITY & PROCESS DESCRIPTION:**

Mitsubishi Cement's Lucerne Valley plant is a Portland Cement manufacturing facility with a preheater Precalciner kiln. The hourly throughput is approximately 325-tons/hour feed. The preheater has four stages, and the Precalciner consumes about 60% of the total fuel used in the kiln. The kiln currently fires coal and tires, with Biosolids (dewatered sewage sludge) on an occasional basis, and natural gas as a back-up fuel. The raw mill is in-line with the kiln. This is an existing kiln, and there is no raw material dryer at this facility. The kiln does not waste cement kiln dust (CKD) at this time. Currently the kiln has the following raw material sources: Cushenbury mine for limestone and silica, the Silver Lake mine in Baker, CA, for iron from magnetite, and mines in Australia and Malaysia for alumina and bauxite. Other raw material sources are used as economics change.

**II. BACKGROUND:**

The Federal Clean Air Act Amendments of 1990 established a nation-wide permit to operate program commonly known as "Title V". MDAQMD adopted Regulation XII [Rules 1200 - 1210] and Rule 221 - *Federal Operating Permit Requirement*; [Version in SIP = Current, 40 CFR 52.220(c)(216)(i)(A)(2) - 02/05/96 61 FR 4217], to implement the Federal Operating Permit, and received Interim Program Approval from EPA on March 6, 1996.

This *Statement of Legal and Factual Basis*, pursuant to Rule 1203(B)(1)(a)(i), is intended to assess the adequacy of this Title V Application and to explain the District's basis in composing the Title V - Federal Operating Permit. The Title V Federal Operating Permit application received before March 6, 1997 met the Part 70 application deadline for MDAQMD facilities. [NOTE: all MDAQMD facilities subject to Title V were required to submit Title V applications by March 6, 1997].

The facilities Title V Permit Application was reviewed and subsequently determined complete.

The District's approach to the Title V program is to issue a single Federal Operating Permit for the entire facility

that satisfies the federal requirement for a permit under Rule 221 [*NOTE: MDAQMD maintains separate Title V and District permits programs*]. All Federal, State and most District only requirements, associated with the emission of air contaminants, are included in the Federal Operating Permit. All documents, which are not readily available to the public, and are necessary to support the permit, are to be included. The District has taken the approach that the following documents are readily available to the public, and therefore, are not included: *Code of Federal Regulations, California Code of Regulations and Health and Safety Code, District Rules and Regulations [both documents are current and appear in the California State Implementation Plan], the continuous emission monitoring system quality assurance and monitoring plans [available at the facility or the District's office], all test methods, copies of District Authorities to Construct and Permits to Operate [available at the District's office]*.

The USEPA, Region 9 was e-mailed a draft of the proposed permit on January 9, 2004 [a hard copy was mailed January 9, 2004]. The USEPA statutory 45-day review period will expire on or about March 11, 2004. The 30-day Public Notice will be published on January 27, 2004 and end on February 25, 2004.

The District will review and consider all public and EPA comments and modify this "Statement of Basis" document and Title 5 Permit to address agreed to concerns before the proposed Title V Permit is issued.

**Rule 1203 (D)(1) outlines Title V Permit content requirements as follows:**

**III. TITLE V PERMIT CONTENTS [Rule 1203 (D)(1)]:**

All Federal Operating Permits shall contain, at a minimum, the following terms, and conditions:

A. Identification of Applicable Requirements:

1. Standard conditions for generally applicable requirements do not list those processes to which they apply as allowed by EPA's White Paper One, page 11, section 4, last sentence of paragraph 2.
2. Minor New Source Review (NSR). All existing permit conditions, which are based on previous authority to construct conditions, are considered applicable federal requirements because those pre-construction review actions resulted from SIP Rule 203 - *Permit to Operate* and SIP Rule 204 - *Permit Conditions*.

3. Federal Applicable/Enforceable Requirements:

District Rule 1201 (P): "Federally Enforceable" - Any requirement, condition or other term which is fully enforceable by USEPA pursuant to the provisions of 42 U.S.C. §7413 (Federal Clean Air Act §113) or the public pursuant to the provisions of 42 U.S.C. §7604 (Federal Clean Air Act §304).

District Rule 1201 (G): "Applicable Requirement" - Any of the following requirements, including requirements that have been promulgated or approved by USEPA through rulemaking at the time of permit issuance but have future effective dates, as they apply to a Facility or Permit Unit:

**Appropriate conditions are included in the Title V Permit to ensure compliance with the following requirements (a through i).**

- (a) Any standard or other requirement contained in the applicable implementation plan for the District, and any amendments thereto, approved or promulgated pursuant to the provisions of Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515).
- (b) Any term or condition of any preconstruction permit issued pursuant to regulations approved or promulgated under Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515).
- (c) Any standard or other requirement under 42 U.S.C. §§7411, Standards of Performance for New Stationary Sources (Federal Clean Air Act §111); 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112); and any regulations promulgated thereunder.

- (d) Any standard or other requirement under Title IV of the Federal Clean Air Act (42 U.S.C. §§7651-7651o) or the regulations promulgated thereunder.
- (e) Any requirements regarding monitoring, analysis, and compliance established pursuant to 42 U.S.C. §7414(a)(3), Record keeping, Inspections, Monitoring and Entry (Federal Clean Air Act §114); 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §504); and the regulations promulgated thereunder.
- (f) Any standard or other requirement governing Solid Waste Incineration Units under 42 U.S.C. §7429, Solid Waste Combustion (Federal Clean Air Act §129) and the regulations promulgated thereunder.
- (g) Any standard or other requirement for consumer or commercial products under 42 U.S.C. §7511b(e) (Federal Clean Air Act §183) and the regulations promulgated thereunder.
- (h) Any standard or other requirement of the regulations promulgated under Title VI of the Federal Clean Air Act (42 U.S.C. §§7671-7671q) unless the USEPA has determined that such requirement need not be contained in a Federal Operating Permit.
- (i) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515), but only as it would apply to temporary sources pursuant to the provisions of 42 U.S.C. 7661c(e) (Federal Clean Air Act §504(e)).

4. See the following discussions below:

40 CFR Part 61, Subpart M - National Emission Standard for Asbestos

This facility on an as needed basis is subject to Section 61.145 through 61.147 - standards for the demolition and renovation of asbestos. Historically, the facility has been in compliance with the requirements of these standards. **Appropriate conditions are included in the permit to ensure compliance with these requirements.**

40 CFR Part 82 - Protection of Stratospheric Ozone

This facility is in compliance with the requirements of this part. Any servicing of air conditioners is performed by a qualified contracting company. **Appropriate conditions are included in the permit to ensure compliance with these requirements.**

40 CFR, Parts 60.7, 60.8 and 60.13; Subpart A - New Source Performance Standards, General Provisions

Some facility equipment is subject to the requirements of this part. **Part VI Permit Shield, Title V Permit document, Appendix A, pages 1-7, and Appendix B, pages 1-13 (this document & Title V Permit document); all included in the proposed Mitsubishi Title V Permit address NSPS and NESHAP's requirements.**

C. Emissions limitations and/or standards, including operational limitations, which assure compliance with all Applicable Requirements and a reference to the origin and authority of each term or condition contained in the Federal Operating Permit: **Processes and Control Equipment Requiring Emission and Operational Limitations are stated in the Title V Permit conditions.**

- D. Monitoring requirements including but not limited to: [40 CFR 70.6(a)(1)] [see following] **Processes and Control Equipment Requiring Monitoring and Recordkeeping are stated in permit conditions. Records for 5 years stated in Title V Permit conditions.**
- (i) All emissions monitoring and analysis methods required by an Applicable Requirement.
  - (ii) Periodic monitoring, testing or record keeping (including test methods sufficient to yield reliable data) to determine compliance with an Applicable Requirement that does not directly require such monitoring.
  - (iii) Necessary requirements concerning use and maintenance of equipment including the installation and maintenance of monitoring equipment.
- Other - Facility Support Equipment**  
Underground gasoline tanks are given a PTO pursuant to District Rule 461. No NSPS, NESHAPS or MACT apply to underground gasoline tanks equipment at this facility. **Appropriate conditions for underground gasoline tanks are included in the Title V Permit for this facility.**
- E. Record keeping requirements, where applicable, including but not limited to: [see following] **Processes and Control Equipment Requiring Monitoring and Recordkeeping are stated in permit conditions. Records for 5 years stated in Title V Permit conditions.**
- (i) Records of required monitoring information including dates and times of sampling, operating conditions at the time of sampling, date of analysis, analytical techniques and methods, the person or company performing the analysis, and the results of the analysis.
  - (ii) The retention of all records for a period of at least five (5) years from the date of monitoring.
- F. Reporting requirements, where applicable, including but not limited to: [see following] **COMPLETED, requirement in proposed Title V Permit.**
- (i) Submittal of any required monitoring reports at least every six (6) months.
  - (ii) Prompt reporting of all deviations from permit requirements including those attributable to breakdown conditions. Prompt reporting shall be determined in compliance with District Rule 430.
- G. Various Standardized Provisions and/or Conditions: [see following] **COMPLETED, requirement in proposed Title V Permit.**
- (i) A severability clause.
  - (ii) A provision, which states that the permit holder shall comply with all conditions of the Federal Operating Permit. Any noncompliance constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; the termination, revocation and reissuance, or modification of the Federal Operating Permit; and/or grounds for denial of a renewal application.
  - (iii) A provision which states that the need to halt or reduce activity to maintain compliance with the provisions of the Federal Operating Permit, or for any other reason, is not a defense in an enforcement action.
  - (iv) A provisions, which states that the Federal Operating Permit may be modified, revoked, reopened, reissued or terminated for cause.

- (v) A provision which states that the filing of an application for modification; a request for revocation and re-issuance, or termination; or notifications of planned changes, or anticipated noncompliance does not stay any condition of the Federal Operating Permit.
- (vi) A provision, which states that the permit does not convey any property rights of any sort, or any exclusive privilege.
- (vii) A provision which states that the Permit holder shall furnish to the District, within a reasonable time as specified by the District, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, terminating or determining compliance with the Federal Operating Permit.
- (viii) A provision which states that the Permit holder shall, upon request, furnish to the District copies of records required to be kept pursuant to conditions of the Federal Operating Permit.
- (ix) A provision requiring the payment of annual permit renewal fees and other applicable fees as prescribed in District Rule 312.
- (x) A provision stating that no permit revision shall be required under any approved economic incentives, marketable permits, emissions trading or other similar programs provided for in the permit.
- (xi) Terms and conditions, if applicable, for reasonably anticipated operating scenarios identified by the Facility in its application which require the Facility, contemporaneously with making the change from one operating scenario to another, to record in a log at the Facility a record of the scenario under which it is operating; and ensure that each alternative operating scenario meets all Applicable Requirements.
- (xii) Terms and conditions, if requested by the applicant, for the trading of emissions increases and decreases within the Facility to the extent any Applicable Requirements allow for such trading without case-by-case approval. Such terms conditions shall include all terms and conditions to determine compliance with all Applicable Requirements; and meet all Applicable Requirements.

H. Compliance Conditions: [see following] **COMPLETED, requirement in proposed Title V Permit.**

- (i) Inspection and entry requirements which require that the Permit Holder allow an authorized representative of the District to enter upon the Permit holder's premises, at reasonable times.
- (ii) Provisions which allow an authorized representative of the District to have access to and copy any records that must be kept under conditions of the Federal Operating Permit.
- (iii) Provisions, which allow an authorized representative of the District to inspect any Permit Unit, equipment, practice, or operation regulated or required under the Federal Operating Permit.
- (iv) Provisions which allow an authorized representative of the District to sample or monitor substances or parameters for the purpose of assuring compliance with the Federal Operating Permits or with any Applicable Requirement.
- (v) A Compliance Plan.
- (vi) A restatement, if applicable, of the requirement that the Permit holder submit progress reports at least semiannually pursuant to a schedule of compliance. Such progress reports shall comply with the provisions of District Rule 1201(I)(3)(iii).
- (vii) Certification requirements including the frequency of submission, not less than annually, for Compliance Certifications.
- (viii) Requirements that method for monitoring compliance be included in the Compliance Certifications.

- (ix) Requirements that all Compliance Certifications be contemporaneously submitted to USEPA.
- (x) Any additional certification requirements as specified in 42 U.S.C §7414(a)(3), Recordkeeping Inspections Monitoring and Entry (Federal Clean Air Act §114(a)(3)) and 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §503(b)) or in regulations promulgated thereunder.

Fugitive Emissions: **COMPLETED, control equipment and requirements are addressed in proposed Title V Permit.**

- (i) Fugitive emissions shall be included in the permit and permit conditions in the same manner as stack emissions.

#### **IV. CONCLUSIONS AND RECOMMENDATION:**

In conclusion, the proposed Facility Title V Permit has been found to satisfy all of the requirements of District Rule 221, Rule 312, Regulation XII Rules, and the District's Title V Permit Program requirements.

*Therefore, it is recommended that this Title V - Federal Operating Permit be issued to satisfy these requirements on March 25, 2004.*

## **APPENDIX "A"**

### **DISTRICT / SIP RULE COMPLIANCE DEMONSTRATIONS:**

- A. Rule 406: Owner/Operator shall not discharge into the atmosphere from this facility, from any single source of emissions whatsoever, Sulfur compounds, which would exist as a liquid or gas at standard conditions, calculated as sulfur dioxide (SO<sub>2</sub>) greater than or equal to 500 ppm by volume.  
[40 CFR 70.6 (a)(1) - Periodic Monitoring Requirements] (for Periodic Monitoring Requirements, see: Part II, section A, condition 22; Part III, section C, conditions 11 and 22; Part V, section C, condition 4; Part V, section D, condition 3; Part V, section I, condition 3)  
[Rule 406 - Specific Contaminants; Version in SIP = 07/25/77, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489, Subpart (a) only; Current Rule Version = 02/20/79]

Rule 406 specifies standard conditions, but not dry. Standard conditions for Rule 406 will be calculated as wet.

#### **Calculate the SO<sub>2</sub> concentration in the diesel fueled IC engine exhaust gas using the following assumptions/calculations:**

1. Maximum sulfur content of the diesel fuel is by permit condition: 0.05 % by weight.
2. Specific gravity of diesel fuel is 0.84: weight of one gallon of diesel fuel is: 8.33 lb/gal x 0.84 = 7 lb/gal.
3. Heating value of diesel fuel from U.S. EPA AP-42, Section 3.3: 19,300 Btu/lb.
4. Gallons of fuel required for 10<sup>6</sup> Btu: 1 lb/19,300 Btu = x lb/ 10<sup>6</sup> Btu: x = 51.8 lb: (51.8 lb)(1 gal/7 lb) = 7.4 gallons per 10<sup>6</sup> Btu.
5. Pounds of sulfur per 10<sup>6</sup> Btu (7.4 gallons): (7.4 gal)(7 lb/gal)(0.0005) = 0.0259 pounds.
6. Mols of sulfur per 10<sup>6</sup> Btu: 0.0259 lb/ 32 lb/mol = 8.09 x 10<sup>-4</sup> mols.
7. Volume of SO<sub>2</sub> produced; assuming that one mol of sulfur produces one mol of SO<sub>2</sub>; 8.09 x 10<sup>-4</sup> mols of SO<sub>2</sub> are produced per 10<sup>6</sup> Btu of diesel burned: (385 ft<sup>3</sup> / mol)(8.09 x 10<sup>-4</sup> mols) = 0.312 ft<sup>3</sup>: (385 ft<sup>3</sup>/mol is at 68 degrees Fahrenheit).
8. From 40 CFR 60, Appendix A, Method 19 the F<sub>w</sub> factor for diesel is 10,320 wscf / 10<sup>6</sup> Btu (68 degrees Fahrenheit, 0 % excess O<sub>2</sub>). Rule 406 specifies the SO<sub>2</sub> concentration at standard conditions, wet, not dry.

For purposes of this calculation, excess air from the combustion process will not be considered in calculating the SO<sub>2</sub> concentration & is the most conservative assumption:

Concentration of SO<sub>2</sub> at zero percent oxygen:

$$0.312 \text{ ft}^3 / (0.010320 \times 10^6 \text{ wscf}) = 30.2 \text{ ppmv}$$

**Conclusion: Diesel fueled IC Engine exhaust SO<sub>2</sub> concentration of 30.2 ppmv complies with Rule 406 SO<sub>2</sub> limit of 500 ppmv.**

**It is assumed that the SO<sub>2</sub> concentration in natural gas fueled IC engine exhaust gas will be conservatively less than that demonstrated above for diesel combustion:**

#### **Calculate the CO concentration in boiler exhaust gas using the following assumptions/calculations:**

1. Based on U.S. EPA AP-42; Section 1.4, Table 1.4-2, lists the CO emission factor for natural gas combustion in boilers to be 35 lb CO per 10<sup>6</sup> ft<sup>3</sup> of natural gas burned. Assume 1000 Btu / ft<sup>3</sup> of natural gas.
2. From 40 CFR 60 Appendix A, Method 19, the F<sub>d</sub> factor for natural gas is 8710 dscf / 10<sup>6</sup> Btu (68 degrees Fahrenheit). Rule 407 specifies the CO concentration on a dry basis.

3. For the purposes of this calculation, excess air will not be considered in calculating the CO concentration (most conservative):

Cubic feet of CO produced per  $10^6$  ft<sup>3</sup> of natural gas burned:  
(35 lb) (1 lb mol / 28 lb) (385 ft<sup>3</sup> / mol) = 481 ft<sup>3</sup> CO (385 ft<sup>3</sup> / mol at 68 degrees Fahrenheit)

Dry cubic feet of combustion gas formed from  $10^6$  ft<sup>3</sup> of natural gas burned:  
( $10^6$  ft<sup>3</sup> gas) (1000 Btu / ft<sup>3</sup>) (8710 dscf /  $10^6$  Btu) = 8,710,000 dscf

CO concentration = 481 ft<sup>3</sup> / 8.71  $10^6$  ft<sup>3</sup> = 55.2 ppm (most conservative)

**Conclusion: Boiler exhaust CO concentration of 55.2 ppmv complies with Rule 407 CO limit of 2000 ppmv.**

- B. **Rule 409:** Owner/Operator shall not discharge into the atmosphere from this facility from the burning of fuel, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO<sub>2</sub>) at standard conditions averaged over a minimum of 25 consecutive minutes. [Rule 409 - *Combustion Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

**Calculate the Total Particulate Concentration in the diesel fueled IC engine exhaust gas using the following assumptions/calculations:**

1. Based on U.S. EPA AP-42, Section 3.4, Table 3.4-5, the emission factor for total particulate is 0.0697 lb/ $10^6$  Btu. (= 487.9 grains/ $10^6$  Btu)
2. From 40 CFR 60, Appendix A, Method 19 the F<sub>w</sub> factor for diesel is 10,320 wscf/ $10^6$  Btu (68 degrees Fahrenheit, 0 % excess O<sub>2</sub>). Rule 409 specifies the Particulate concentration at standard conditions, wet, not dry.

For purposes of this calculation, excess air from the combustion process will not be considered in calculating the Particulate concentration & is the most conservative assumption:

**Concentration of Particulate at zero percent oxygen:**

$$(487.9 \text{ grains}/10^6 \text{ Btu}) / (10,320 \text{ wscf}/10^6 \text{ Btu}) = 0.047 \text{ grain}/\text{ft}^3$$

**Conclusion: Diesel fueled IC Engine exhaust Total Particulate concentration of 0.047 grain per cubic foot complies with Rule 409 limit of 0.1 grain per cubic foot.**

**It is assumed that the Total Particulate concentration in natural gas fueled IC engine exhaust gas will be conservatively less than that demonstrated above for diesel combustion:**

## **APPENDIX B**

### **NSPS Subparts A, Y, and OOO and NESHAP Subparts A and LLL Requirements**



**Table B-1: NSPS Subpart A and Subpart Y Requirements for Coal Handling Units**

§60.252(c) Limit opacity to 20% using EPA Method 9 for opacity

§60.7(a)(4) Notify the Administrator of planned changes to the operation or equipment.

§60.7(b) Keep records of the occurrence and duration of any startup, shutdown, or malfunction in operation.

§60.11(c ) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction.

§60.11(d) At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

**Table B-2: NSPS Subpart A and Subpart OOO Requirements for Sand Plant**

§60.672(a)(1) and §60.672(g) limit stack particulate matter (PM) emissions to 0.022 gr/dscf for any transfer point for belt conveyors or any other affected facility, including multiple storage bins with combined stack emissions (not including baghouses that control emissions only from an individual enclosed storage bin)

§60.672(a)(2) and §60.672(g) limit stack emission opacity to 7% for any transfer point for belt conveyors or any other affected facility, including multiple storage bins with combined stack emissions

§60.672(b) limit fugitive emission opacity to 10% for any transfer point on belt conveyors or any other affected facility

§60.672(c) limit fugitive emission opacity to 15% from any crusher at which a capture system is not used.

§60.672(d) truck dumping is exempt from above limits

§60.672(f) limit stack emission opacity to 7% for any baghouse that controls emissions from only an individual enclosed storage bin

§60.7(a)(4) Notify the Administrator of planned changes to the operation or equipment.

§60.7(b) Keep records of the occurrence and duration of any startup, shutdown, or malfunction in operation

§60.11(c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction.

§60.11(d) At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

§60.8 and §60.675 perform initial compliance testing within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup and at such other times as may be required by the Administrator under Section 114 of the Clean Air Act. Conduct test under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. Use EPA Method 5 or Method 17 to determine compliance with the PM standard and use EPA Method 9 to determine compliance with opacity standard.

- The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121°C (250°F), to prevent water condensation on the filter.
- For transfer points on belt conveyors and any other affected facility, including multiple storage bins with combined stack emissions, the minimum total time of observations shall be 3 hours (30 6-minute averages). The duration may be reduced from 3 hours to 1 hour if there are no individual readings greater than the opacity limit and there are no more than 3 readings greater than the opacity limit for the 1-hour period.
- For baghouses that control emissions only from an individual enclosed storage bin, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

**Table B-2: NSPS Subpart A and Subpart OOO Requirements for Sand Plant**

- The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed. For affected facilities using wet dust suppression for particulate matter control, the spray sometimes generates a visible mist. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- A 30-day notice is required prior to the initial performance test. If, after 30 days notice for an initially scheduled performance test, there is a delay in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

§60.676(a) submit required information in case of equipment replacement.

§60.676 (f) Submit a written report of all performance tests conducted to demonstrate compliance with the PM and opacity standards.

§60.676 (h) The requirement for notification of the anticipated date of initial startup is waived.

§60.676 (i) Notify the Administrator of the actual date of initial startup.

**Table B-3: NSPS Subpart A, Y, and OOO Applicability**

Section	Description	MCC Applicability
<b>NSPS Subpart A</b>	<b>General Provisions (60.1--60.19)</b>	Yes
§60.1	Applicability	Yes
§60.2	Definitions	Yes
§60.3	Units and abbreviations	Yes
§60.4	Address	Yes
§60.5	Determination of construction or modification	Yes
§60.6	Review of plan	Yes
§60.7	§60.7(a)(1) Notification of date of construction	No
	§60.7(a)(3) Notification of date of initial startup	No
	§60.7(a)(4) Notification of planned changes	Yes
	§60.7(a)(5) Notification of CMS demonstration test	No
	§60.7(a)(6) Notification of initial opacity observation date	Yes
	§60.7(a)(7) Notification of COMS data use in place of observations	No
	§60.7(b) Recordkeeping for start-up, shutdown, malfunction of affected unit or control device.	Yes
	§60.7(c) CEMS performance report and excess emission report	No
	§60.7(d) CEMS performance report and excess emission report format	No
	§60.7(e) CEMS performance report and excess emission report frequency	No
	§60.7(f) Keep all measurements records for 2 years.	Yes
	§60.7(g) and (h) Administrative requirements relating to notification	Yes
§60.8	Initial performance tests	Yes
§60.9	Availability of information	Yes
§60.10	State authority	Yes
§60.11	§60.11(a) Compliance with standards other than opacity	No for Subpart Y Yes for Subpart OOO
	§60.11(b) Compliance with opacity standard	Yes
	§60.11(c) Exemption during startup, shutdown & malfunction periods	Yes
	§60.11(d) Maintain proper operation at all times, including during startup, shutdown, and malfunction periods	Yes
	§60.11(e) Initial opacity observation	Yes
	§60.11(f) Specific subpart requirement governs	Yes
§60.12	Circumvention	Yes
§60.13	Monitoring requirements	No
§60.14	Modification	Yes, in case of modification
§60.15	Reconstruction	Yes, in case of reconstruction
§60.18	General control device requirement (Flares)	No

**Table B-3: NSPS Subpart A, Y, and OOO Applicability**

Section	Description	MCC Applicability
§60.19	General notification and reporting requirements	Yes
<b>NSPS Subpart Y</b>	<b>Standards of Performance for Coal Preparation Plants (60.250--60.254)</b>	
§60.250	Applicability and designation of affected facility	Yes
§60.251	Definitions	Yes
§60.252	§60.252(a) and (b) Standards for PM	No
	§60.252(c) Standards for opacity	Yes
§60.253	Monitoring of operations	No
§60.254	§60.254(a) General testing requirement	Yes
	§60.254(b)(1) Test methods and procedures for PM	No
	§60.254(b)(2) Test methods and procedures for opacity	Yes
<b>NSPS Subpart OOO</b>	<b><u>STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS (60.670 – 60.676)</u></b>	
§60.670	Applicability and designation of affected facility	Yes
§60.671	Definitions	Yes
§60.672	§60.672(a) standard for PM and Opacity	Yes
	§60.672(b) opacity standard for transfer points	Yes
	§60.672(c) opacity standard for crusher	Yes
	§60.672(d) truck dumping is exempted from PM and Opacity standards	Yes
	§60.672(e) opacity standard for enclosed building	No
	§60.672(f) opacity standard for baghouse vents	Yes
	§60.672(h) visible emission standard for wet screening	No
§60.674	Pressure and flow rate monitoring requirements for wet scrubber	No
§60.675	Test method and procedures for PM and opacity	Yes
§60.676	§60.676(a) equipment replacement report	Yes
	§60.676(c) performance test and daily record keeping for wet scrubber	No
	§60.676(d) and (e) semi-annual report for wet scrubber	No
	§60.676 (f) report of all performance tests	Yes
	§60.676 (g) change in wet screening operations	No
	§60.676 (h) waiver of notification of anticipated startup date	Yes
	§60.676 (i) notification of actual startup date	Yes
	§60.676 (j) delegation of enforcement authority to a State	Yes

**Table B-4: NESHAP Subpart LLL Requirements for Kiln #B001025-1**

§63.1343(b)(1) Limit PM emissions to 0.30 lb/ton dry feed.

§63.1343(b)(2) Limit opacity to 20%.

§63.1343(b)(3)(i) Limit D/F emissions to  $8.7 \times 10^{-11}$  grains (TEQ) per dscf of exhaust gases @ 7% O<sub>2</sub>, or  $1.7 \times 10^{-10}$  grains (TEQ) per dscf of exhaust gases @ 7% O<sub>2</sub> for temperatures below 400 °F.

§63.1344(a) & (b) Limit temperature at kiln baghouse inlet to values measured during D/F performance test (with raw mill on and off, respectively).

§63.1349(b)(1) Conduct an initial performance test for PM and opacity using EPA Method 5 for PM and Method 9 for opacity. Test at the highest load or capacity reasonably expected to occur. Minimum 3 separate runs. Minimum sample volume 30 dscf. Back half is not included. Report results in lb/ton feed. Maximum 6-minute average opacity during each of 3 PM tests.

§63.1349(b)(3) Conduct an initial performance test for D/F using EPA Method 23. Minimum 3 separate runs. Minimum sample volume 90 dscf PM D inlet temperature must be monitored. Test with raw mill on and raw mill off, separately.

§63.1349(c) Repeat performance test for PM every 5 years.

§63.1349(d) Repeat performance test for D/F every 30 months.

§63.1349(e) Repeat performance test for PM, opacity, and D/F within 360 hours of initiating any significant change in the feed or fuel from that used in the previous performance test

§63.6(e)(3) Develop startup, shutdown, and malfunction (SSM) plan.

§63.1350(a) Prepare an operations and maintenance (O&M) plan.

§63.1350(c)(2) Perform daily opacity monitoring using EPA Method 9 for at least 30 minutes each day. Record the average opacity for each 6-minute period. To be in compliance, no 6-minute period can exceed 10%. The highest emission site will be identified based on a 6-minute Method 9 test covering the entire exhaust from the multi-stack baghouse, and a 30-minute Method 9 will be performed at that site.

§63.1350(f)(1) through (f)(5) Install continuous temperature monitor and recording device for baghouse inlet gas (record on three-hour average basis distinguishing between periods when the raw mill is online and offline).

§63.1350(f)(6) Calibrate thermocouples and/or temperature sensors every 3 months.

**Table B-4: NESHAP Subpart LLL Requirements for Kiln #B001025-1**

§63.1350(i) Perform annual inspection of the components of the combustion system.

**Table B-4: NESHAP Subpart LLL Requirements for Kiln #B001025-1**

§63.8(c) Follow requirements for CMS installation and identify out-of-control periods for temperature monitor.

§63.8(d) Develop a CMS QC program for temperature monitor.

§63.8(e) Conduct a CMS performance evaluation for the temperature monitor.

§63.1353(b)(2) & §63.9(e) Notify administrator of performance test and opacity observation at least 60 calendar days before scheduled test date.

§63.1353(b)(5) Notification of compliance status within 30 or 60 days after performance test completed.

§63.1354(b)(1)&(2), & §63.10(d)(2)&(3) Submit results of performance test and opacity observations within 60 days after completion of test.

§63.1354(b)(4) & §63.10(d)(5)(i) Submit semiannual report of all malfunctions, SSM actions consistent with SSM plan, and SSM actions not consistent with SSM plan but not resulting in excess emissions, within 30 days following the end of the semiannual period.

§63.1354(b)(5) & §63.10(d)(5)(ii) Notify EPA and MDAQMD within 2 working days of actions not consistent with SSM plan, followed by certified letter within 7 days.

§63.1354(b)(9) & §63.10(c) Submit semiannual summary report of gas temperature monitoring and recording device.

§63.1355(a) & (b), & §63.10(b) & (c) Keep records for 5 years from the date of occurrence for:

- Applicability determination
- Notifications of performance tests
- Results of performance tests
- SSM records, including actions not consistent with SSM plans
- O&M records, including discrepancies
- VE/opacity inspections
- Temperature monitoring data
- Thermocouple calibrations
- Temperature CMS records
- Semiannual reports and other reports

**Table B-5: NESHAP Subpart LLL Requirements for Clinker Cooler #B001025-2**

§63.1345(a)(1) Limit PM emissions to 0.10 lb/ton dry feed.

§63.1345(a)(2) Limit opacity to 10%.

§63.1349(b)(1) Conduct an initial performance test for PM and opacity using EPA Method 5 for PM and Method 9 for opacity. Test at the highest load or capacity reasonably expected to occur. Minimum 3 separate runs. Minimum sample volume 30 dscf. Back half is not included. Report results in lb/ton feed. Maximum 6-minute average opacity during each of 3 PM tests.

§63.1349(c) Repeat performance test for PM every 5 years.

§63.6(e)(3) Develop startup, shutdown, and malfunction (SSM) plan.

§63.1350(a) Prepare a written operations and maintenance (O&M) plan.

§63.1350(d)(2) Perform daily opacity monitoring using EPA Method 9 for at least 30 minutes each day. Record the average opacity for each 6-minute period. To be in compliance, no 6-minute period can exceed 10%.

§63.1353(b)(2) & §63.9(e) Notify administrator of performance test at least 60 calendar days before scheduled test date.

§63.1353(b)(5) Notification of compliance status within 30 or 60 days after performance test completed.

§63.1354(b)(1)&(2), & §63.10(d)(2)&(3) Submit results of performance test and opacity observations within 60 days after completion of test.

§63.1354(b)(4) & §63.10(d)(5)(i) Submit semiannual report of all malfunctions, SSM actions consistent with SSM plan, and SSM actions not consistent with SSM plan but not resulting in excess emissions, within 30 days following the end of the semiannual period.

§63.1354(b)(5) & §63.10(d)(5)(ii) Notify within 2 working days actions not consistent with SSM plan, followed by certified letter within 7 days.

§63.1355(a) & (b), & §63.10(b) Keep records for 5 years from the date of occurrence for:

- Applicability determination
- Notifications of performance tests
- Results of performance tests
- SSM records, including actions not consistent with SSM plans
- O&M records, including discrepancies
- VE/opacity inspections
- Reports

**Table B-6: NESHAP Subpart LLL Requirements for Raw Mills and Finish Mills**

§63.1347 Limit opacity to 10%.

§63.1349(b)(2) Conduct an initial performance test for opacity using EPA Method 9. The duration of the test shall be 3 hours but may be reduced to 1 hour if certain conditions are met.

§63.1349(c) Repeat performance test for opacity every 5 years.

§63.6(e)(3) Develop startup, shutdown, and malfunction (SSM) plan.

§63.1350(a) Prepare a written operations and maintenance (O&M) plan.

§63.1350(e) Perform daily opacity monitoring using EPA Method 22 for six minutes.

§63.1350(e)(1) & (e)(2) If visible emissions are observed during opacity monitoring, perform corrective actions within 1 hour according to O&M plans, followed by VE inspection using EPA Method 9 within 24 hours.

§63.1353(b)(3) & §63.9(f) Notify administrator of opacity test at least 30 calendar days before scheduled test date.

§63.1353(b)(5) Notification of compliance status within 30 or 60 days after performance test completed.

§63.1354(b)(2) & §63.10(d)(3) Submit results of opacity observations before 30 days following the completion of the VE/opacity observation.

§63.1354(b)(1)&(2), & §63.10(d)(2)&(3) Submit results of performance test and opacity observations within 60 days after completion of test.

§63.1354(b)(4) & §63.10(d)(5)(i) Submit semiannual report of all malfunctions, SSM actions consistent with SSM plan, and SSM actions not consistent with SSM plan but not resulting in excess emissions, within 30 days following the end of the semiannual period.

§63.1354(b)(5) & §63.10(d)(5)(ii) Notify EPA and MDAQMD within 2 working days of actions not consistent with SSM plan, followed by certified letter within 7 days.

§63.1355(a) & (b), & §63.10(b) Keep records for 5 years from the date of occurrence for:

- Applicability determination
- Notifications of performance tests
- Results of performance tests
- SSM records, including actions not consistent with SSM plans
- O&M records, including discrepancies
- VE/opacity inspections
- Reports

**Table B-7: NESHAP Subpart LLL Requirements for Other Affected Sources**

§63.1348 Limit opacity to 10%.

§63.1349(b)(2) Conduct an initial performance test for opacity using EPA Method 9. The duration of the test shall be 3 hours but may be reduced to 1 hour if certain conditions are met.

§63.1349(c) Repeat performance test for opacity every 5 years.

§63.6(e)(3) Develop startup, shutdown, and malfunction (SSM) plan.

§63.1350(a) Prepare a written operations and maintenance (O&M) plan.

§63.1350(a)(4) Perform 1-minute opacity monitoring using EPA Method 22 monthly, semi-annually, or annually. If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. If no visible emissions are observed during the semi-annual test for any affected source, the owner or operator may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

§63.1353(b)(1) Initial notification of Subpart LLL applicability.

§63.1353(b)(3) & §63.9(f) Notify administrator of opacity test at least 30 calendar days before scheduled test date.

§63.1353(b)(5) Notification of compliance status within 30 or 60 days after performance test completed.

§63.1354(b)(2) & §63.10(d)(3) Submit results of opacity observations before 30 days following the completion of the VE/opacity observation.

§63.1354(b)(4) & §63.10(d)(5)(i) Submit semiannual report of all malfunctions, SSM actions consistent with SSM plan, and SSM actions not consistent with SSM plan but not resulting in excess emissions, within 30 days following the end of the semiannual period

§63.1354(b)(5) & §63.10(d)(5)(ii) Notify EPA and MDAQMD within 2 working days of actions not consistent with SSM plan, followed by certified letter within 7 days.

§63.1355(a) & (b), & §63.10(b) Keep records for 5 years from the date of occurrence for:

- Applicability determination
- Notifications of performance tests
- Results of performance tests
- SSM records, including actions not consistent with SSM plans
- O&M records, including discrepancies
- VE/opacity inspections
- Reports



**Table B-8: NESHAP Subpart A and Subpart LLL Applicability**

Section #	Section Title	Applicability (yes/no)	Exceptions?
§63.1	Applicability	Yes, except	63.1(b)(1) See 63.1340
§63.2	Definitions	Yes	
§63.3	<u>UNITS AND ABBREVIATIONS</u>	Yes	
§63.4	Prohibited Activities and Circumvention	Yes	
§63.5	Construction and Reconstruction	Yes	
§63.6	Compliance with Standards & Maintenance Requirements	Yes, except	63.6(h)(5) See LLL
§63.7	Performance Testing Requirements	Yes	
§63.8	Monitoring Requirements	Yes, except 63.8(c)	Data reduction per LLL
§63.9	Notification	Yes, except	63.9(f), not required per 63.1350 (e) & (j)
§63.10	Recordkeeping and Reporting	Yes	
§63.11	Control Device Requirements	No	All sections do not apply
§63.12	State Authority and Delegations	Yes	
§63.13	Addresses of State Agencies and EPA Regional Offices	Yes	
§63.14	Incorporation by Reference	Yes	
§63.15	Availability of Information and Confidentiality	Yes	

Section #	Section Title	Applicability (yes/no)	Exceptions?
§63.1340	Applicability and Designation of Affected Sources	Yes	
§63.1341	Definitions	Yes	
§63.1342	Standards: General	Yes	
§63.1343	Standards for Kilns and In-line Kiln/Raw Mills	Yes, except	63.1343(c), (d) & (e)
§63.1344	Operating Limits for Kilns and In-line Kiln/Raw Mills	Yes, except	63.1344(c), (d) & (e)
§63.1345	Standards for Clinker Coolers	Yes	
§63.1346	Standards for New and Reconstructed Raw Material Dryers	No	

**Table B-8: NESHAP Subpart A and Subpart LLL Applicability**

Section #	Section Title	Applicability (yes/no)	Exceptions?
§63.1347	Standards for Raw and Finish Mills	Yes	
§63.1348	Standards for Affected Sources Other than Kilns; In-line Kiln/Raw Mills; Clinker Coolers; New and Reconstructed Raw Material Dryers; and Raw and Finish Mills	Yes	
§63.1349	Performance Testing Requirements	Yes, except	63.1349(b)(3)(v) and (vi), (b)(4)
§63.1350	Monitoring Requirements	Yes, except	63.1350(c)(1), (d)(1), (g), (h) & (K)
§63.1351	Compliance Dates	Yes	
§63.1352	Additional Test Methods	Yes	
§63.1353	Notification Requirements	Yes, except	(b)(4)
§63.1354	Reporting Requirements	Yes, except	(b)(7)
§63.1355	Recordkeeping Requirements	Yes	
§63.1356	Exemption from new Source Performance Standards	Yes	
§63.1357	Temporary, Conditioned Exemption from Particulate Matter and Opacity Standards	Yes	
§63.1358	Delegation of Authority	Yes	

**Table B-8: NESHAP Subpart A and Subpart LLL Applicability**